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TWO CASES OF FRACTURE OF THE SKULL.[1]

BY H. B. MARION, M. D.

Case I. About six o'clock in the afternoon of November 3, 1872, C. B., fourteen years of age, was struck by a pistol ball (No. 32) while sitting idly in a swing. The blow neither stunned nor prostrated her, nor was she conscious that she was much injured till she wiped the blood from her face. She walked to the house, a short distance, without assistance. When I arrived she was blanched and very much excited. She soon became pulseless, her respiration sighing, and her extremities cold and clammy. There was a wound just at the left of the median line, and about an inch and a half or two inches from the eyebrow. It looked very much like a leech bite enlarged; hæmorrhage had ceased. Before the shock was complete I probed the wound; the probe passed readily into the frontal sinus towards the outer angle of the left eye, but nothing that simulated a foreign substance was touched. After probing the sinus carefully I attempted to pass the probe directly back, but could find no opening through the inner table of the skull. The shock was now complete, and as her condition looked very critical, Dr. Braman, since deceased, was summoned in consultation. She had rallied somewhat by the time he arrived. I again probed the wound, as before, and with similar result.

Things looked too serious not to advance with the greatest caution. Dr. D. W. Cheever was sent for. He arrived at 11.45 P. M. In the mean time she had completely rallied, and save vomiting showed no signs of cerebral disturbance.

Without ether Dr. Cheever probed the wound with a Nélaton's probe; as he did not succeed in finding an opening through the inner table he hoped the ball might be lodged sómewhere within easy reach, and advised searching for it at once. The patient having been etherized he made an incision about three inches in length, parallel with the brow; another at right angles with this, extending to the hair. On dissecting the integument from the os frontis a circular fracture of the external table was evident, with the included fragment depressed. A trephine was used, and the depressed portion removed; also bits of

[1] Read before the Boston Society for Medical Observation, October 15, 1877.

straw from the hat she had on at the time of the injury. The ball had left its mark on the surface of the depressed bone. As an opening through the internal table was not found, another portion of the external table was removed nearer the median line. After careful sponging the course of the ball was evident. The inner table was fractured and depressed; a small portion of sound bone was removed by the trephine. A piece of bone as large as a gold dollar was depressed, standing at an angle of about 45° to the surface. The pulse being very small and frequent the ether was stopped. Carefully and cautiously the depressed piece of bone was removed; the lacerated dura mater could be seen. An attempt to vomit forced from this opening a clot about half an inch in length. A probe was carried, by its own weight, an inch and a half within the cranium. The patient was turned upon her face, with the hope that the ball by its weight might escape, but it did not. The ball in all probability having entered within the skull, further interference was deemed unadvisable. The wound was carefully cleansed and a wet compress applied. Vomiting freed the stomach from a quantity of apples and chestnuts. Time of operation about an hour. Prognosis unfavorable.

November 4th. Patient slept well after the operation. Pulse and temperature normal; complained of nothing but the taste of the ether. She was ordered to be kept in a room with the blinds closed and the curtains down; sufficient bromide of potassium to keep her quiet; to see no one but the nurse; to have a liquid diet, and cold applications to head.

These directions were carefully and faithfully carried out by an efficient nurse.

On November 9th not an unfavorable symptom had occurred. Slight hernia cerebri.

The case went on to recovery without any symptom or incident worth recording, save a few attacks of slight vertigo if she were standing, especially if she were standing for any one to look at the cicatrix. Pulsations of the brain can now be seen distinctly. The case offers the following points of interest: *First*, in a medico-legal point of view. She was shot by one from whom she was entirely concealed. He was standing on a side hill on a plane several feet higher than the swing in which she was sitting. He was using for a target a tree which stood midway between them, namely, about thirty yards from each. Had he missed the target the ball would of course have gone many feet over her head. The swing in which she sat was suspended from a tree near the foot of the hill, close to a bank-wall.

Ascending the hill and examining the tree used as a target I noticed one place among several others where not only the bark had been removed but the course of the ball was evident by an oblique line on the

wood. This was on the side of the tree, just where a large branch was given off. The line of vision being extended along this line, it fell directly on the forehead of an adult sitting in the swing, looking in the direction of the tree.

Second. It was singular that a blow of such apparent gravity should have neither stunned nor prostrated the patient at once.

Third. Was the exploration justifiable?

The external wound was small, and the probe showed only that the frontal sinus had been opened. She was not prostrated by the blow, and after the shock, which might have been caused by her consciousness that she had been shot, had passed off there were no signs of cerebral lesion. On the other hand, the result of the exploration showed how great a risk there would have been if there had been no interference. Certainly in removing the pieces of bone, the piece of hat, and clots of blood, and demonstrating that the internal table was fractured, nothing was done to incur additional risk to her life; and by the extraction of these may we not justly conclude that sources of great danger were removed?

Fourth. Did the ball pass within the skull or not, and if it did where is it?

It was the opinion of Drs. Cheever, Braman, and myself, *at the time*, that the ball had entered the skull. It was thought possible that the ball striking at an angle of 5° or 10° to the plane of the falx cerebri was by it deflected, and passed on beside it and between the two hemispheres. There certainly was an opening through *both* tables of the skull, that in the inner table being nearer the middle line.

The grass around the swing was literally combed in search of the ball. Not finding it either on the ground or in the patient is no proof that it was not there.

Case II. G. H. J., twenty-five years of age, was thrown from a carriage July 30, 1877. It is supposed that the horse stepped on his head. This happened about five o'clock in the afternoon. He did not move nor show signs of life for some minutes.

The patient was brought to his brother's house, about two and one half miles distant, at once. On the way he vomited freely, talked some, and is said to have recognized one or more of those whom he met.

I saw him at about 5.45 P. M., less than an hour after the accident. The pulse was about 90. Pupils widely dilated and insensible to light. Introducing my finger into an irregular wound, about an inch long, over the left temporal ridge of the frontal bone, I could readily feel a sharp edge of bone extending in the form of a semicircle. As I was examining the wound he had a severe epileptiform convulsion. Between six and seven o'clock he had four very severe and somewhat protracted convulsions, the pupils gradually contracting except just be-

fore and during a convulsion. Pulse at seven o'clock 100; breathing heavy and labored. Vomited. Moved his hands and feet freely.

About 8.20 Dr. C. B. Porter, whom I had previously sent for, arrived. The patient was immediately put under the influence of ether. Dr. Porter enlarged the original wound, making evident the exact nature of the injury.

An irregular piece of bone, an inch by an inch and a half, involving the left posterior inferior angle of the frontal bone, extending backwards and upwards to the coronal suture and downwards to the greater wing of the sphenoid, was depressed and immovable.

In trephining more than four fifths of the button were taken from the depressed portion, beneath which was a clot of blood as large in circumference as a dime, and much thicker. This was removed. The dura mater, so far as we could see, was not lacerated. With the button nearly the whole of the depressed portion was removed. There being no hæmorrhage the flaps were brought together by interrupted sutures and dressed with wet compresses.

At eleven o'clock the patient was still somewhat under the influence of the ether. Pulse 88.

July 31st, nine A. M. Pulse 88, regular, full, and soft. Pupils responsive to light. Answered direct questions with "yes" and "no." Temperature 98⅘° F. Passed a restless night; hands and feet cold; yawned frequently; vomited occasionally. When asked where he had pain, put his hand to left frontal region. Considerable hæmorrhage through the night; none at time of visit. Flaps were distended with coagula; upper one discolored and cold.

10.30 A. M. Sent for in great haste, as he was supposed to be dying. Said to have been very pale and to have almost stopped breathing; had rallied before I arrived. Hæmorrhage commenced again. Frequent vomiting. At one P. M. I syringed out the wound, and with the finger dislodged the clots outside the skull. Hæmorrhage not ceasing, I laid open the wound and began removing clots from within the cranium whence the hæmorrhage came. Pulse ran up to 140 or 150. Dr. Giddings was present, and kindly assisted. Satisfied that there was an immense clot inside the skull, and considering the critical condition of the patient, I sent a note to Dr. Porter, stating his condition and asking him to see the patient again.

On his arrival the pulse had improved; still it was small, frequent, and without volume. Vomiting continued. The removal of the clot was resumed by Dr. Porter and accomplished with not a little difficulty. When all was removed and syringed out it was evident that the whole of the left anterior fossa had been occupied by a clot. The orbital plate was entirely uncovered and the brain substance forced back. The oozing was from numerous small points of the dura mater, especially in

the vicinity of the longitudinal sinus. The brain did not resume its normal position, and as the oozing continued bits of sponge with a piece of thread attached were lightly placed on the surface of the dura mater until the fossa was a little more than half filled.

August 1st, six A. M. Had a fair night; almost no hæmorrhage. Pulse 96, of a much better character. Temperature 100°. Took an ounce of beef tea every two hours after midnight, and retained it. Ordered twenty grains of bromide of potassium every four hours.

Nine A. M. Removed sponges; they were saturated with blood, and fresh oozing commenced when the surface was exposed. Brain substance had come forward a very little. Sponges thoroughly cleansed in a solution of carbolic acid, and replaced. Pulse of much better volume than twenty-four hours before.

Six P. M. Has remained quiet through the day, and slept. Pulse good. He started up as if to get off the bed, and directly the sponges became saturated.

August 2d. Had a comfortable night, with almost no bleeding; removed sponges this noon; but little oozing followed. Surface of dura mater left exposed; carbolized spray used occasionally. Passed a quiet afternoon, with no hæmorrhage at all. Brain filled about one half the fossa. Put on a light compress saturated in a weak solution of carbolic acid. From this date the case progressed with but little variation to recovery. The brain gradually occupied its natural position. There was partial ptosis of right eyelid until after the brain had regained its position, and the dura mater was covered with fresh and healthy granulations. For four or five days after the sponges were removed the wound looked unhealthy and was offensive. The hands and the legs below the knees remained cold most of the time. No stool until August 7th, when he had a copious dejection after repeated half-ounce doses of castor-oil. Occasionally he complained of frontal headache. Pupils remained natural after the first twelve hours No convulsions after the operation.

From the 5th to the 10th he slept most of the time, at one period having some stertor, protruding his tongue very slowly and allowing it to remain out of his mouth for some time. On the 8th, the ninth day after injury, he had an involuntary stool and micturition. On the 25th he went down-stairs, and on the 30th he was taken in a hack to his own house, about half a mile distant.

It is very interesting in the progress of this case to notice the condition of the mind. During the ten or twelve hours immediately following the injury he was absolutely unconscious. First day, he answered direct questions by "yes" and "no." Second day, through force of habit, perhaps, the reflex influence of a distended bladder made him uneasy and attempt to get up. On being restrained he said: "If you don't let me get up I 'll piss in the bed." Third day, as I entered the

chamber, he said, "Good morning, doctor." "Doctor who?" I asked. "Dr. Marion;" but in a moment after he did not seem to know me. Fourth day, as Dr. Porter entered, putting out his hand, and in response to the doctor's asking him how he did, he said, "How do you do?" as he would in common parlance, not appreciating the force of the inquiry. "Do you know who it is?" I asked. "Dr. Warren." "Who am I?" "You are Dr. Warren, too." "They are all Warrens, are n't they?" "Yes," he said in a matter-of-fact way. On seeing his mother, he said, "How do you do, Mrs. Hitchcock? Take a chair." Fifth day, he recognized his brother. From this to the beginning of the tenth day (or August 8th) he lay in a semi-stupid condition. On the evening of that day I asked him how he felt. He said, "Betterish." The nurse said, "Das ist gut," upon which he smiled. Eleventh day, the nurse, the patient apparently being asleep, was telling of a man being thrown from a hook-and-ladder carriage the night before, when he suddenly broke in with, "That was a narow escape. I wonder it had not killed him." I said, "You would not care to take that chance." "You are right," he answered. Eighteenth day, he asked the nurse if he had the horse cleaned, as he thought he would go to ride. *Nurse.* "Do you like to ride?" "I 'd rather ride than do anything else." *Nurse.* "Well, I guess I 'll get a dollar-and-a-half horse down town." "I 'd rather go a little better than that," he replied. Nineteenth day, he asked for his father and called for different things to eat; wanted his brother's baby to be brought up. It was noticed that he talked more, and most of the time in a wandering, disjointed way. Twentieth day, talked a good deal, with mild delirium. Twenty-first day, I asked him how he got hurt. "I was driving with Dr. Marion, and I guess we had a smash-up. Think I was driving Dr. Marion's white horse." Sat up in a chair a short time; asked for his watch and chain. Twenty-second day, did not know where he was; when told, he recognized the house of his next-door neighbor. Remembered nothing that was said or done two hours before. Twenty-fifth day, tried constantly to get his clothes and go down-stairs. Twenty-sixth day, being down-stairs, he saluted an intimate friend, who happened to come in, with, "Has that baby come along yet?" referring to his wife's expected confinement. Said he was stopping at Mr. Jordan's. Twenty-seventh day, was counting collars, shirts, and cuffs which had just been brought from the laundry. Counted correctly, though he did it many times over. Told me a long story commencing about his aunt's daughter and granddaughter, but ran off on something else, using vague expressions. Still thought he was at Mr. Jordan's. Thirtieth day, nurse thought him more rational. Thirty-first day, on his way home he recognized the different houses along the way, and knew persons whom he passed in the street. Knew his own room, and began at once to look about as if to see whether everything were correct. Thirty-third day, when I entered the room, he

remarked, "I got home this morning." To my inquiry as to where he had been he quickly responded, "Down to Providence." Then he went on to tell how he got away from Nantucket; from this he gave an account of incidents through which he had passed, all in a disconnected, rambling sort of way. Thirty-fifth day, does not forget as quickly what happens from day to day; talks much less, and does not tell those fabulous stories. Does not yet know how he was hurt. Forty-second day, remembers quite accurately the events of the day; does not forget what happens from day to day. Talks no more in that rambling, meaningless way. Fiftieth day, can give a correct account of all things that transpired on the day he received the injury; remembers everything up to the time of the accident. The wound has now nearly healed.

The treatment consisted in light diet, well-ventilated and darkened room, absolute quiet, sponge baths, ice-water pillow; bromide, ergot, quinine, and castor-oil to meet the indications. The wound was dressed with solutions of carbolic acid.

To recapitulate briefly, comparing the condition of the mind with the condition of the wound at corresponding dates: —

Date. Intervals of five Days.	Character of Wound.	Condition of Mind.
July 30th to August 4th.	Time of injury, portion of bone removed. Anterior fossa filled with clot; removed; packed with sponges for thirty-six hours. Sloughy. Serous, offensive discharge.	Absolute unconsciousness. Convulsions. Answers direct questions with "yes" and "no." For an instant recognizes faces. Some association of ideas, for example, desire to rise to urinate.
[August 4th to August 9th.	Wound offensive. Temperature elevated from two to four degrees. Surface of dura mater covered with exudation of lymph.	Unnatural and protracted sleep. Involuntary dejection and micturition. Says he knows those about, but calls them by wrong names. Speaks only when spoken to. Takes food when offered, but does not call for it.
August 9th to August 14th.	Healthy granulations cover surface of dura mater. Temperature elevated from one to two degrees.	Talks only when spoken to. Takes notice of what is said in his presence, and makes a logical deduction.
August 14th to August 19th.	Wound healing rapidly. Temperature normal.	Expressed desire to ride. Asks for different kinds of food, different members of the family, and takes more notice.
August 19th to August 24th.	Space between dura mater and skull filled.	Slightly delirious. Talks much. Is lost. Sleeps but little. Insists that he is not at his brother's.
August 24th to August 29th.	Healing rapidly. Temperature elevated about a degree, consequent upon going downstairs, change of scene, etc.	Mind active. Busy about something all the time. Talking most of the time while awake. Tells strange, unreasonable stories as if they were positive facts.
August 29th to September 3d.	The same.	The same.
September 3d to September 8th.	Healing slowly; causes no inconvenience.	Does not forget what is told him or what happens through the day.
September 8th to September 13th.	Remains about the same	Talks rationally. Remembers from day to day. Recalls events up to a few days prior to the accident.
September 13th to September 18th.	Small triangular place not covered by integument. Suffers nothing from the wound.	Remembers *correctly* the events of the day on which he was injured, and all previous to just a moment before he was thrown. The rest is a blank.

In this imperfect history of a very interesting case I desire to emphasize a few points, namely: —

(1.) The convulsions did not recur after trephining.

(2.) There was no hæmorrhage at the time of operation, but severe intracranial hæmorrhage followed some hours after.

(3.) Notwithstanding the immense clot that filled the anterior fossa, consequently compressing to a considerable degree the whole hemisphere, there was neither hemiplegia nor loss of any special function, so far as I observed.

(4.) The unusual surgical procedure of packing inside the skull to arrest hæmorrhage.

FROM THE BRAIN TO THE EAR.

BY E. CHENERY, M. D., BOSTON.

THAT inflammation should not unfrequently extend from the deeper portions of the ear to the membranes of the brain, or even to the brain itself, may be easily accepted both from the anatomical relations of the parts and the observations of practice. But that disease should begin in the brain or its envelopes and pass downward into the bones about the ear and finally into the ear is quite another thing. In an article in the JOURNAL for November 1st, by Dr. J. O. Green, of this city, there is reference to such a possibility, and the citation of a case reported by Berndgen supposed to be in point; yet on carefully reading the case there seems to me to be ground for question whether the affection was primarily of the encephalon, since there had been a recent attack of otitis, which, though apparently relieved, may have extended to the cells and to the parts beyond.

In a case which came under my own care many years ago, there seems less chance for doubt, and as it has never been reported I will give an outline of it here.

Mr. J. W. was a resident of the country, of good constitution, twenty-two years of age, and a carpenter. With full consent of his parents he left home, and found employment in the original Pemberton Mills at Lawrence. On one very hot day in July, with a number of others, he was engaged in laying down floor between the brick walls. So intense was the heat that all but him and another man gave out and left their work. Several of them, I learned, were sunstruck, and one subsequently came under my care with headache and inability to bear heat or exercise, as a result of the prostration of that day. He was a long time recovering so as to work again.

Mr. J. W. said he thought he should be obliged to give up also, for his head felt as though it would split, and he could not stoop without an effort to keep from pitching forward. The next day his head ached,

and he did not feel like work. Having lingered about for a few days he came home to see his friends and rest a little. They noticed that he did not seem to be as cheerful as when he went away, and he did not get out his violin, as he was wont to do, and make merriment for the young folks about him. After a week or so he started back on a Bangor steamer, and was so bewildered that he went to several depots before he got the right one for Lawrence. His head ached, he felt weak, dizzy, without ambition, and could not set himself to work, and again returned home. His head grew worse, particularly nights, and he frequently expressed regret for ever going away from home, thought he had done wrong in doing so, and could not be persuaded to the contrary. In September he came into my office in a depressed state of mind, showed me the backs of his hands, which were somewhat mottled, and thought his blood was turning to water. I had never seen him before, but was impressed with his evident mental aberration. The next day he came out with the measles and went under the care of a former family physician, I having gone away for a few days. He recovered from the measles, though not from the trouble in his head. Afterwards he had pain in his right ear, with which he was almost beside himself. It found partial relief in the discharge of purulent matter from the ear, and from this time onward the discharge never ceased. Another physician also saw him, and both of them gave it as their opinion that there was no trouble with the head, — that his pains, mental depression, etc., were wholly in the imagination. His parents, having confidence in the doctors, took the same view, and scolded him for his mourning, and his complaining about his head, and because he showed no ambition to do anything. One day he was in the field with his father, who spoke sharply to him, and told him to take hold and help him, when his eyes glared wildly, and he started for the woods near by.

In this way things went on from bad to worse for several months, when his father, hearing that I thought he seemed to be out of his mind when he came to my office, at length called me to him. He was up and about the house; his ear was running, his countenance looked badly, and he could not sleep nights because of the pain in his head. His father would sit by him in the night and hold his head. "Sit on it, father;" "put it in the vise," he often exclaimed.

Notwithstanding all this his parents could not divest themselves of the idea that "it was all imagination." Seeing that he was not likely to stand it long, I prevailed on his father to call in an eminent physician, some miles distant, in order to undeceive his friends as to the nature of his case, and have something done for him, if possible, before they should be left to reproach themselves for their want of sympathy, for he felt very keenly this lack in the hours of his suffering.

He died nine months after the trouble in his head began, and four after the ear began to discharge. Before he died he left a request that I should open his head and show his friends that he "did not die of imagination."

The autopsy which was performed the next day.

On raising the calvaria the membranes over the right ear were found thickened, softened, covered with purulent matter, and detached from the petrous portion of the temporal, which was dark and its cavities filled with pus. The middle lobe of the cerebrum was softened in nearly its whole extent. Just above the petrous portion there was an abscess the size of a very large hen's egg, having a sac quite the sixteenth of an inch thick. Dividing through the bones, the cells were filled with pus down into the mastoid process, and there was no doubt that the matter discharged from the ear came from as high up as the dura mater. It would seem that nature here sought to remedy the mischief first by incapsulating the pus within the membranes, and secondly by allowing that which formed without to seek an external outlet through the canals of the bones and the ear, there being no observed communication between the interior of the sac and the ear. Here, then, is a case of undoubted cerebral disease for months prior to any trouble with the ear. Though there was an attack of measles preceding the discharge from the ear, there seems no evident connection between the measles and the discharge. If, therefore, the disease in the ear did not originate in the head, it must have occurred as a concomitant, destroying the vitality of the bones above the ear, and communicating with the membranes just at the time when the inflammation within had resulted in breaking down a large mass of the brain and encysting it within. The natural and likely conclusion is that the disease was primarily of the encephalon and secondarily of the ear, and that the latter was consequent to the former.

RESULT OF THE BROWN-SÉQUARD TREATMENT IN TWELVE CASES OF EPILEPSY.

BY JAMES B. AYER, M. D.

Nine of the cases tabulated upon page 746 have occurred in the private practice of Dr. James Ayer; two have occurred in my own private practice; the remaining patient has taken upon herself the full responsibility of treatment.

All cases are recorded in which systematic treatment has been followed.

The following prescription (occasionally slightly modified) has been used in each case: —

℞ Sodii bromidi
Iodidi bromidi
Ammonii bromidi . . . . . ää ʒ iij.
Potassii iodidi
Ammonii iodidi . . . . . ää ʒ iss.
Ammoniæ sesquicarb. . . . . ʒ i.
Tinct. calumbæ . . . . . fʒ iss.
Aquæ destillat. . . . . ad fʒ viij. M.

Full dose: one and a half drachms before each meal, and three drachms at bedtime.

Patients were informed at the outset that regular treatment would continue two years, at the end of which time the dose would be left, in a measure, to their discretion, full treatment, except for averting threatened attacks, being no longer advisable.

Six of the patients took, during more than half the treatment drachm doses of the following mixture after each meal:—

℞ Strychniæ sulph. . . . . gr. i.
Acidi sulphurici dil. . . . . mx.
Aquæ destillat. . . . . ʒ iv. M.

To others strychnia was given in smaller doses and for a shorter period.

In all cases the diet was carefully regulated; coffee and tea allowed in moderation; alcohol and tobacco prohibited as far as possible.

Healthy mental occupation and amusements, out-of-door exercise, and regular hours of sleep were insisted on, while everything of an exciting character was forbidden.

Results. — In four cases very satisfactory: reduced to a single attack in forty-six months, thirty-one months, twenty-two months, and sixteen months respectively.

In five cases number and severity of attacks both diminished.

In one case severity diminished, number unchanged.

In two cases no change in number or severity.

In eleven cases there has been *marked* improvement in general health and mental condition.

In one case there has been a *slight* improvement.

Over-exertion and carelessness were frequent causes of attacks occurring in patients under treatment. The attack noted in Case III. was attributed to excitement in connection with a fair. In Cases I. and IV. the attacks were caused by smoking. In Case IX. the death of the patient's mother was the exciting cause.

Other occasional attacks could be traced to exposure to the sun, to indigestible food, or to constipation.

An extra dose of the mixture taken at the appearance of the first premonitory symptom very often succeeded in averting a threatened attack.

Considering the length of treatment and the large doses taken it is

	Case.	Condition before Treatment.	Treatment: 3 viiss. = full dose: sixty-three grains bromides, twenty-one grains iodides.	Result.
I.	Male, sixty years.	When a youth had epileptic attacks, from which he recovered. Attacks began July, 1872, and occurred at intervals of a few days up to April, 18.3.	April, 1873, to April, 1875, 3 viiss. daily. April, 1875, to November, 1877, occasional doses.	Improved immediately. Only one attack (January, 1876) since January, 1874. Vertigo at rare intervals. General health and mental condition have improved.
II.	Male, sixty-seven years.	Thirty-six years' standing. For several years had averaged one attack in three weeks.	July, 1875, to November, 1877, 3 iij. daily.	Attacks less severe, but number not diminished. Attends to business.
III.	Female, adult.	Thirteen years' standing. During last five years had one attack every two months.	April, 1875, to April, 1877, 3 v. daily (with occasional omission of a dose). April, 1877, to November, 1877, 3 iij. daily (generally).	Only one attack (June, 1877) since treatment commenced. General health is much improved.
IV.	Male, twenty-two years. Cause, overwork while a clerk.	Had averaged one attack each month for two years. Occasional petit mal.	January, 1876, to November, 1877, 3 v. daily.	One attack since treatment commenced. Health improved. Has removed to the country. Is out-of-doors much of the time.
V.	Female, forty years.	Severe attacks, connected with the catamenia, once each month for five years.	January, 1876, to June, 1876, 3 vi. daily. June, 1876, to September, 1876, omitted treatment. September, 1876, to November, 1877, irregular treatment.	Between January, 1876, and June, 1876, three attacks. Since June, 1876, two attacks. Occasional attacks of petit mal.
VI.	Male, eleven years.	In nine months preceding treatment had six full and four incomplete attacks.	April, 1876, to November, 1877, 3 iiss. daily; extra doses every few days, which generally were successful in warding off attacks.	During nineteen months of treatment has had four full and three incomplete attacks. General health improved.
VII.	Male, thirty-five years.	Commenced May, 1869. From May, 1869, to January, 1871, ten attacks; 1871, twelve attacks; 1872, nine; 1873, thirty-eight; 1874, forty; 1875, thirty-four; January to April, 1876, two. Also, petit mal.	April, 1876, to November, 1877, 3 viiss. daily. Omitted two doses.	April, 1876, to January, 1877, seven attacks. January, 1877, to November, 1877, three attacks. General health improved.
VIII.	Female, seventeen years. Cause, overstudy.	Attacks at intervals of one to three weeks for several months, with petit mal.	May, 1876, to November, 1877, 3 v. daily.	Very few attacks; none during past six months. General health excellent. Spends much time in travel. When at home studies French and music.
IX.	Female, forty years.	Twenty-one years' standing. At first, every six months, then less frequent, but for last few years have occurred every month in connection with the catamenia. Attacks severe.	July, 1876, to November, 1877, 3 viiss. daily. Omitted four days.	One attack only, August, 1877. General health excellent. Is extremely nervous.
X.	Female, eleven years. Cause, scarlatina?	Several years' standing. Attacks at irregular intervals.	September, 1876, to November, 1877, 3 iv. daily.	Severity of attacks diminished. No diminution in frequency. Has a healthier appearance. Is gaining flesh.
XI.	Male, four years. Cause, imperfect cerebral development.	Intelligence deficient. First attack at age of six months. Of late, ten to fifteen attacks each month.	April, 1877, to November, 1877, 3 iss. daily for three months; 3 iiss. daily for two months. Omitted for two months.	No diminution in number or severity of attacks. Slight improvement in mental condition and general health.
XII.	Female, twenty-three years.	Petit mal since 1867. In 1876 had one hundred and ninety-five attacks. Full epileptic attacks since September, 1876. In eight months preceding treatment, six full attacks and one hundred and fifty-two attacks of petit mal.	June, 1877, to November, 1877, 3 v. daily.	No full attack during five months of treatment. Twenty-eight attacks of petit mal. General health improved.

very remarkable that the evil effects of iodides and bromides have shown themselves to so slight an extent.

In Case XI. treatment was temporarily suspended on account of acne; this, perhaps, was not necessary, as in Case IV. the eruption was well marked from the beginning of the treatment, which was continued without interruption. In the remaining cases the eruption has proved insignificant.

In some cases increased drowsiness was caused by treatment. One patient slept during the greater part of ninety-six hours. Treatment was recommenced after that time without producing this result. Another, after two years' treatment, found that the night dose began to produce too profound sleep, followed the next day by headache.

The majority of the patients were troubled with dyspepsia and constipation before commencing treatment. Appropriate remedies were prescribed (in connection with the treatment for epilepsy), and in every case marked improvement followed.

In Case I. it should be mentioned that Fowler's solution was contra-indicated. This remedy, which has been recommended in connection with the bromides to diminish the eruption, was given to him on two occasions, in five and three minim doses, for obstinate eczema of the hand. Both trials were followed by premonitory symptoms of an attack, and the drug was discontinued.

Our patients have not been disturbed and alarmed by the serious effects of bromism so graphically described by recent authors, but on the contrary there is a tendency (which I have reason to believe is rapidly increasing in the community) to underrate the danger attending this treatment and to assume, after obtaining the prescription, the whole responsibility of treatment without consulting a physician.

If these cases remain three or four years longer under observation they will be of value in deciding whether or no this treatment, together with the best of care, can *cure* epilepsy.

RECENT PROGRESS IN SURGERY.

BY J. COLLINS WARREN, M. D.

Antiseptic Surgery, or the antiseptic system, as Lister prefers to call it, had not gained a foothold in this country previous to his visit, eighteen months ago, to attend the meeting of the International Medical Congress. This assertion is based upon a perusal of the discussion which took place at the meetings of the section on surgery, and the fact that our journals have published but few clinical contributions to the subject. At present, however, it bids fair to come largely into use, and at least Boston and New York[1] have taken the initiation. In

[1] New York Medical Journal, December, 1877.

Germany the literature of this subject is very abundant, the system having been adopted by nearly all its leading surgeons. We select from a huge mass of material the report of Professor Volkmann to the sixth congress of the German Surgical Association as an example. The statistics of three full years' trial of the antiseptic treatment in over one thousand important surgical cases are given. There were one hundred and eighty-three amputations performed upon one hundred and seventy-two patients; of these one hundred and forty-nine with one hundred and fifty-six amputations recovered. Twenty-three patients died, giving a mortality of 13.37 per cent. Out of one hundred and nineteen operations upon the breast, six died; two of these died of erysipelas. There were forty-five cases of hydrocele treated antiseptically by incision.[1] There were no deaths, and in but one instance was there any delay in the healing of the wound. Seventy-five cases of compound fracture were mentioned, with no deaths. Of twenty-four cases of penetrating wounds of joints all recovered. He says in concluding the statistics, which are voluminous, "No case of pyæmia or septicæmia has occurred among any of the cases operated upon, or among the wounded treated by us." In cases treated antiseptically, there was erysipelas in but three or four instances. For a complete summary of the antiseptic system, the report of Dr. A. C. Girard to the Surgeon-General in August, 1877, is the most satisfactory we have seen.

Hydrophobia. — There can be little doubt that the present epidemic is more severe than any which has occurred during the experience of the present generation. Our journals have presented a large number of cases during the past year, and at present the English medical press teems with accounts of cases. The *Lancet*, *Gazette*, and *Veterinary Journal* all freely discuss the subject. No little feeling is shown at the disinclination of the government to adopt preventive measures, if we may judge from the following quotation from the pen of a British subject: "The death or grave illness of a royal prince from typhoid fever rouses the government to permit the establishment of a sanitary organization; but princes do not come in the way of hydrophobia, and nothing is done." Sir William Gull, in a recent number of the *Lancet*, speaking of the nature of the poison and its long period of incubation, suggests the retention of it at the seat of injury may justify not only late excision of the wound, but even removal of the cicatrix after the disease has manifested itself. Dr. Fayrer follows him with a general indorsement of his views, but neither have anything new to suggest in the treatment of the disease.

Extirpation of the Kidney. — The favorable results of ovariotomy have emboldened many surgeons to invade regions and excise organs which

[1] For an account of this operation vide the JOURNAL, June 22, 1876.

have hitherto enjoyed immunity from the knife. Prominent among performances of this class is the removal of the kidney, which has been performed successfully more than once. According to the *Medical Times and Gazette*, Dr. Langenbuch, of Berlin,[1] did this operation in the autumn of 1875. The patient, a female, thirty-two years of age, had suffered for eighteen months with dull pain in the region of the left kidney, and for three months had noticed a swelling which palpation readily detected in front of the left kidney. It was a hard, tolerably smooth, globular body, of about six to eight centimetres in diameter, and somewhat movable. Against the probability of its kidney origin was the fact that nothing abnormal could be found in the urine. An incision was made parallel to and about six centimetres from the spinal column from the angle of the twelfth rib to the crest of the ileum. The tumor was found involved in the superjacent muscles, some of which had to be cut. The growth was isolated, and the cord to which it was attached tied, this proving to be the ureter. The operation was performed antiseptically, and the patient made a rapid recovery, being in the hospital but two months. The mass was cystic and evidently an altered kidney, but its precise structure could not be determined, as the specimen, through carelessness, was lost.

The *Lancet* for June 16th has an account of an operation performed by Mr. Jessop, who removed the left kidney from a child aged two years and three months. The first noteworthy symptoms were hæmaturia and irritation of the bladder, but several soundings for stone gave negative results. The child, however, lost flesh, and became more and more pallid. About two months previously a rapidly increasing tumor was discovered in the left renal region, and as the indications were those of malignant growth Mr. Jessop determined to cut down upon it, and, if possible, to remove it. The incision was similar to that recommended for colotomy, but longer. When the diseased mass was reached the kidney was peeled by means of the fingers, and a whip-cord ligature was passed around the vessels and ureter and firmly tied. The remainder of the growth was afterwards stripped away, and the whip-cord left to drain the wound. The operation was a formidable one, owing to the large size of the diseased organ and the free venous hæmorrhage which followed the separation of the growth from the surrounding structures. When removed the kidney weighed sixteen ounces, and resembled encephaloid in appearance. The child was doing well four days afterwards. There was no peritonitis, the bowels acted freely, and the urine flowed abundantly and was not stained. There was no vomiting, the temperature was but little above normal, and the child partook freely of milk.

Further details of this case are not yet reported. It will be remem-

[1] Berliner klinische Wochenschrift, No. 24, 1877.

bered that Gustav Simon extirpated a kidney for renal fistula opening in the lumbar region, following, if we are not mistaken, an operation of ovariotomy. This case was successful. He next undertook the removal of a kidney filled with renal calculi.[1] The patient had symptoms for twelve years. There was at times severe renal colic, during which the urine, ordinarily muco-purulent and ammoniacal, became clear and healthy. There was extreme emaciation. The incision was made in the lumbar region, and the kidney extracted with difficulty. On opening the organ twenty small calculi were found. The patient died on the thirty-first day, of peritonitis. It is worthy of notice that on arriving at the kidney the calculi could not be felt, but that after extirpation, when the kidney was opened, a large number was found. Dr. Gunn, of Chicago, cut down upon a kidney supposed to contain calculi, but, not feeling them by external palpation, did not remove the organ. Mr. Durham, of Guy's Hospital, had a similar experience.[2]

Extirpation of the Larynx[3] may also be included in this class of operations. A full report of the cases performed up to that period may be found in the report of Dr. Knight in the JOURNAL for April 6, 1876. Dr. David Foulis, of London, has lately done successfully the first operation of the kind done in England. The patient was a male, aged twenty years. Cricotomy had previously been performed upon the patient and the growth excised, which proved a papilloma; a fistulous opening remained. A year later, the growth returning, thyrotomy was performed, the tumor excised, and its base cauterized. The tumor resembled in size and appearance a large raspberry. The second microscopical examination showed round-cell sarcoma. Two months later it had returned, and four months from the date of the last operation the larynx was removed. The incision began at the lower edge of the hyoid bone and ran down the median line to about an inch below the cricoid cartilage. The soft parts were peeled back from the cartilages on either side; the upper ring of the trachea was cut through, and the larynx separated from it, a leaden tube being inserted into the trachea through which respiration took place. The larynx was then pulled forward with hooks and dissected out, the superior cornua of the thyroid and the arytenoid cartilages being left behind. The patient made an uninterrupted recovery, and Gussenbauer's wire apparatus was subsequently fitted into the wound. Dr. Langenbeck reports a case of extirpation of the larynx, hyoid bone, posterior third of the tongue, and a portion of the pharynx wall. The patient died five months later.[4]

Resection of the Œsophagus.[5]— Professor Czerny performed this opera-

[1] Revue des Sciences médicales de Haysen, vol. iv.

[2] New York Medical Journal, December, 1870, quoting from the Chicago Medical Journal, September, 1870.

[3] The Lancet, October 13, 1877.

[4] Archiv für klinische Chirurgie, supplement to vol. xxi.

[5] Central Zeitung, No. 63, 1878.

tion in May last for an annular carcinoma of the œsophagus in a woman fifty-one years of age. A piece six centimetres in length was removed from the entire thickness of the organ, and the lower end of the œsophagus was stitched to the wound in the neck. The patient left the hospital well in a month's time.

Gastroraphy. — Billroth[1] reports a case of gastric fistula involving the abdominal wall, resulting from a chronic abscess over the lower ribs in a woman twenty-five years old. It was first proposed to close the orifice with a granulating flap, but this attempt failed, owing, it was thought, to the digestion of the flap by the gastic juice. The fistula reopened three months later. Cauterization was then tried without success. The next operation consisted in dissecting up the mucous membrane of the stomach and turning it inwards, bringing the raw surfaces together. The cause of failure seemed to arise from extensive adhesion of the stomach to the abdominal wall. Finally, the stomach having been washed out carefully, the mucous coat was dissected away completely from the abdominal wall. It was then drawn out through the hole and sewed together with fine silk sutures, the external orifice being closed by a flap of skin. The operation was performed under antiseptic spray and the usual precautions. No food was given for several days, and then only in small quantities. This operation effectually closed the fistula.

Management of the Urethra after Amputation of the Penis. — Dr. Gouley[2] describes a case of cancer of the penis for which amputation was performed, with subsequent recurrence of the disease in the stump and crura and atresia of the extremity of the urethra. He proposed to remove the disease together with the remainder of the penis, including the crura. The urethra was to be left long enough to be slit longitudinally and stitched to the edges of the skin, so as to form a kind of vulva with a large urethral orifice. The patient, however, refused to submit to it. In May last a patient came under his care who had undergone amputation of the penis for cancer a year before. There was great narrowing of the cicatricial end of the urethra, and a small fistulous opening in the centre of the perinæum. He made, for this case, an incision three inches in length through the perineal integuments, and laid open the urethra for an inch and a quarter, and applied a number of sutures so as to attach the cut edges of the urethra to those of the skin. The urethral incision extended back to the middle of the bulbous portion. There was but little bleeding. The anterior extremity of the urethra was found strictured for an inch or more. "The opening resulting from the operation resembled a small vulva." In a

[1] Wiener medicinische Wochenschrift, No. 38, 1877. London Medical Record, November 15, 1877.

[2] Louisville Medical News, September 15, 1877.

second case amputation was performed close to the pubes, and the urethra was managed as in the previous operation. The crura and urethra were previously secured by transfixion with needles. The urethra was then laid open in the perinæum on a grooved staff and its edges sewed to the skin. The perineal wound did well, but the stump, which had been sewed up, suppurated and was never completely healed. Some infiltration of urine followed, and an abscess formed which had to be opened. To prevent this accident happening in future he proposes to detach the end of the urethra from the cavernous bodies, and to stitch its free extremity to the upper commissure of the perineal wound.

This difficulty was obviated by Wedemyer [1] by detaching the urethra from the stump of the penis, and pulling it through a hole in the perinæum, made for the purpose. He thus describes his operation: The diseased part having been amputated, the wound was continued along the raphé of the scrotum to the perinæum, and the testicles separated. The urethra was then dissected out and an incision made in the perinæum, between the posterior angle of the wound on the anus, about four centimetres in front of the latter. The urethra was passed through this aperture and its edges sewed to the margin of the skin. This separated the urethra entirely from the scrotal wound, which is then sewed up. In the case operated upon in this way Wedemyer had no difficulty with the urine, and the patient was able to urinate in the erect posture by lifting up the scrotum, without soiling his clothing. The advantage of having the urethra open upon a flat surface rather than at the angle of the scrotum is obvious.

For the literature of amputation of the penis, readers are referred to this article, which is quite exhaustive.

Rapid Cure of Popliteal Aneurism by Pressure.[2] — This subject was mentioned in the last report. Cases continue to be reported with favorable results. A case was cured in fifty minutes by Mr. Tyrrell in the Mater Misericordiæ Hospital of Dublin. We may mention in this connection that Dr. Alexander Patterson publishes a case of double aneurism cured by digital pressure in twenty-one hours.

Hæmorrhage after the Application of Esmarch's Bandage. — Dr. Küpper, of Elberfeld, points out [3] that Esmarch's plan of arresting hæmorrhage during surgical operation is attended with one serious disadvantage. When the large vessels have been tied, and the elastic ligature has been removed there is usually free and prolonged bleeding from many small branches, so that the surgeon is often compelled to tie twice or thrice the number of vessels that he need have tied had

[1] Archiv der Heilkunde, Heft 6, 1877.
[2] Lancet, June 30, 1877.
[3] Deutsche medicinische Wochenschrift, No. 43, 1876.

Esmarch's apparatus not been used. When the antiseptic spray and dressings are used this bleeding is especially disadvantageous. The application of Esmarch's apparatus to a limb is followed, as is well known, after removal of the elastic ligature by intense redness of the skin, and by increase of temperature in parts below the seat of compression. From the analogy of these phenomena to those presented by the external ear of an animal after division of the cervical portion of the sympathetic, the author has been led to the conclusion that the application of Esmarch's apparatus causes paralysis of the arterial muscular tissue, either by direct action on this tissue or by indirect action on its nerves. The author proposes, as a means of preventing hæmorrhage due to paralysis of arterial muscular tissue, the application of a strong induced current, one pole being placed at some distance from the seat of operation, the other on the surface of the wound and in direct contact with the divided vessels and nerves. A case is reported in which this proceeding was practiced with the expected result. The same complaint has been made by numerous surgeons during the present year, and this has also been the reporter's experience. An ordinary bandage will empty the limb sufficiently, and will not produce this reaction. It has been the custom at the Massachusetts General Hospital to use a roller bandage in this way in amputations for many years.

Total Resection of Humerus. — Professor Billroth reports this case. It was done for necrosis and caries in a twelve-year-old boy following abscess on the inside of the elbow joint and resection of that joint. No regeneration of the bone took place. The patient had a useful arm supported by a ball and socket apparatus from the shoulder. He also gives a case of extirpation of the scapula for chondro-sarcoma resulting in a tolerably useful arm.[1]

PROCEEDINGS OF THE BOSTON SOCIETY FOR MEDICAL OBSERVATION.

O. W. DOE, M. D., SECRETARY.

NOVEMBER 5, 1877. *Cases of Pleurisy.* — DR. MASON reported five cases of pleurisy, as follows: —

CASE I. *Large Effusion in the Left Side; Paracentesis; Recovery.* — An Irish laborer, aged thirty-three, who had been previously healthy, entered the Carney Hospital with extensive effusion. The attack was caused by sleeping at night on the deck of a steam-boat after a debauch. The patient's weight was one hundred and seventy-five pounds and the chest measurement was forty inches. There was considerable abdominal distress from the downward pressure of the fluid, and the symptoms were somewhat urgent. He was tapped two inches below the angle of the scapula, and four quarts of clear, yellowish

[1] Archiv der klinische Chirurgie, vol. iv.

serum were withdrawn by the aspirator. There was evidently much fluid remaining, but the tendency to cough made further removal undesirable. The abdominal distress was immediately relieved, and in one month the patient made a complete recovery.

Case II. *Effusion in the Left Side; Paracentesis; Recovery.* — An Irish laborer, forty-five years of age, presented himself at the Boston Dispensary with cough and pain in the left side, which had come on after exposure. There was no history of previous illness. The breathing was not difficult, and no abnormal sound was heard on examination of the chest. A blister was ordered and rest advised. This patient did not appear again for a month, when it was found that there was a large effusion in the left chest, flatness extending as high as the clavicle in front and above the middle of the scapula behind, with absence of respiratory sounds and vocal fremitus, the heart beating to the right of the sternum. There was no bulging of the intercostal spaces. The breathing was somewhat labored after going up-stairs, but at the time of examination was nearly normal in frequency. The patient complained of sleeplessness and cough. The face was pale, the lips were blue, the hands cold, and the first sound of the heart diminished in intensity. With the assistance of Dr. J. P. Oliver the patient was tapped below the angle of the scapula, and two and a half quarts of clear, yellowish serum were slowly removed by the aspirator, when severe coughing prevented further evacuation. There was good respiration and percussion to the fourth rib in front after tapping, and the patient was out and about in two weeks, although complete absorption of the fluid did not take place for two months. The patient was seen, however, two years later, when there was no sign of his previous trouble.

Case III. *Effusion in the Left Side; Paracentesis; Recovery.* — An Irish laborer, forty years old, came to the Dispensary, having walked a mile or more without much distress. He was a man of very good muscular development and previous good health and habits. After exposure to the weather he had had an attack of pleurisy in the left side two weeks before, and when seen the physical signs were similar to those in the case just reported. With Dr. Oliver's aid the patient was tapped at the usual point with a large, curved trocar, as a better instrument was not at hand, and three and a half quarts of clear, greenish-yellow serum flowed rapidly through the canula, some air gaining entrance to the chest. There was little cough after the operation; the patient slept well, which he had been unable to do before, and there was good respiration as low as the left nipple in front, with disappearance of the bronchial sounds. This patient came to the Dispensary again in ten days, and was last seen about six weeks after the operation, when absorption was nearly complete and the heart had returned to its normal position.

Case IV. *Effusion in the Right Side; Death.* — An Irish vagrant, twenty-eight years old, entered the Carney Hospital August 24, 1875. There was no definite history of any previous illness, though the patient had had a cough without expectoration which he had not regarded as of importance. He had had little food and had slept out-of-doors most of the summer. Three weeks before entrance there was sharp pain in the right side followed by shortness of breath. On admission the dyspnœa was great, and there was flat per-

cussion as high as the right clavicle, with absence of respiratory sounds over most of the right chest, the cardiac impulse being an inch and a half to the left of and an inch below the left nipple. The patient was badly nourished, and the pulse was 132 and rather feeble. One quart of clear, yellow serum was withdrawn from the chest by the aspirator, but the fluid did not flow readily, coming in jets only when the patient was made to cough, which he finally refused to do. There was a tendency to syncope, for which he was kept in a recumbent position. After operation there was resonance as low as the third rib in front and respiration of broncho-vesicular quality, with some relief from the dyspnœa. Although there was a large quantity of fluid remaining, the patient always refused to be tapped again, and no further absorption took place, though the chest did not refill. A month later there was tympanitic resonance, with bronchial respiration and subcrepitant râles above the third rib. The position of the heart was nearly normal. The pulse varied between 120 and 140, and the respiration between 30 and 45, for two months, the patient refusing to take nourishment much of the time. Finally, there were bed-sores, and he died from exhaustion. At no time was there a troublesome cough or expectoration of a purulent character. There was slight fever and considerable sweating. Unfortunately there was no autopsy; therefore it cannot be stated that this was not a case of secondary pleurisy, but the absence of the usual signs of advanced pulmonary disease led to the opinion that the vital powers had been reduced by privation much below the average, and that the fatal result was due to the long-continued presence of a large effusion.

The first three cases are instances of the favorable result which may be anticipated in the treatment of simple, idiopathic pleurisy. They presented no unusual features, and the usual mode of treatment was adopted. The affection was seated in the left side, and was probably due to the same cause, — exposure to cold. It has been stated that idiopathic pleurisy is more apt to occur in the left side. Dr. Bowditch's experience shows the reverse, or at least that more favorable results have been obtained by him in tapping the right side than the left. Although the effusion was large in these three cases, the dyspnœa was slight, but it was not thought safe to defer tapping on that account, in view of the danger of sudden death from syncope, which occurs occasionally in left-sided pleurisy when there is much displacement of the heart. Bronchial breathing and bronchophony were noticed throughout the affected side in two cases. This is observed in cases of large effusion, when the condensed lung is a better medium for conducting the bronchial sounds.

Case V. *Pyo-pneumothorax; Paracentesis; Free Incision; Death.* — An Irish laborer, aged thirty-two, entered the Carney Hospital December 8, 1874. He had thought himself well until three months before, when he was laid up with cough, chills, and fever. On the fifth day of his illness, when getting out of bed, he was suddenly taken with severe pain in the left side of the chest. The shortness of breath at this time was extreme, and the patient could lie only on the left side. At the time he entered the hospital the signs were those of phthisis, with pneumo-hydrothorax. Loud metallic splashing was heard on succussion. The heart sounds were loudest at the ensiform cartilage, where a diastolic murmur was noticed. He was up and about the ward, but two weeks

ater, as there was no improvement, at the patient's request three ounces of pus were removed by the aspirator. No more could be obtained, although the canula was cleared, and there appeared to be no mechanical obstacle to its exit. Some relief was afforded.

Two weeks later the patient was retapped through the eighth intercostal space behind, and three ounces of pus escaped. No more could be removed, but it was evident from the physical signs that a considerable quantity remained. Great relief was expressed after the operation.

Ten days later, as the dyspnœa caused distress, especially at night, eight ounces of pus were withdrawn through the sixth intercostal space, and a week after there was a very large spontaneous discharge at this point. At this time the pulse was 100 and the respiration 32.

At the end of another week, two months after the patient came to the hospital, an incision was made by Dr. Langmaid, Dr. Bowditch and Dr. Hayden (the attending physician) being present in consultation, between the eighth and ninth ribs. The finger was introduced, and at first no pus escaped, but after a few minutes, on coughing, there was a free evacuation of about a pint. A dilator and a rubber tube were inserted. During the operation the patient was several times in danger from the combined effects of the ether and lying on the right side. Once he became cyanotic, respiration nearly ceased, and the pulse was imperceptible at the wrist, but upon stopping the ether, turning him upon his back, and pulling out the tongue, he revived.

The night following the operation, the patient, who had previously had but one or two hours' sleep at night, slept five hours. There was no cough, and but little pain. The pulse was 104, the respiration 30. The discharge through the tube was considerable. Occasional injections of warm water served to correct its offensiveness. The physical signs showed that there was no expansion of the lung. The respiration gradually became more frequent, increasing to 36, with a pulse of 130. Attacks of severe dyspnœa occurred, and the patient died two weeks after the operation, and about five months after the probable supervention of the pneumothorax.

Autopsy. The abdominal cavity, which was opened first, showed no dislocation of any organs, the diaphragm on the left side not being pushed down. The left thoracic walls were not distended, the intercostal spaces being depressed. The heart was dislocated under the sternum and adherent. The valves were healthy. Half an inch above the aortic valves was an atheromatous condition of the internal surface of the aorta.

The left lung was compressed into a small space against the vertebral column at the upper part of the chest, and was bound down by the very much thickened pleura. The costal pleura was also thickened and covered with patches of firm exudation. At the apex the lung was adherent, and there was a cavity with thin walls, the size of a hen's egg. Through the wall of this cavity on the left side, communicating with the pleural sac, was a hole with thickened edges, a probe passing easily from the lung through the thickened pleura. The left pleural sac contained from six to eight ounces of pus.

The upper lobe of the right lung was the seat of tubercle and small cheesy masses, but there were no cavities.

In this case the patient was decided that his comfort had been temporarily promoted by the operations. The difficulty met with in evacuating the fluid in this and in the previous case was the cause of comment, as no source of obstruction could be detected. The canula appeared in both cases to be in the midst of a large effusion which was free in the thoracic cavity, but for some reason which was not evident it would not flow.

Dr. Cutler asked Dr. Mason if the heart returned to its proper position after aspiration, in the cases he had reported.

Dr. Mason replied that the return was very gradual, since only a part of the fluid was withdrawn.

Dr. Knight reported the case of a boy seventeen years old, who was brought to him ten days before by his father, a physician, solely on account of a little hacking cough of a week's duration. He came into his office after a rapid walk of ten miles. There was no dyspnœa, no elevation of temperature; pulse 118. He had never had any pain in the chest except once; then a little about the left nipple. Physical examination showed considerable effusion in the left chest, in front as high as the nipple, and at the back as far as to the angle of the scapula. One peculiar feature of the case was the fact of the pain being at the nipple instead of in the lower axillary region, as is usual in pleurisy. The boy attributed his condition to a run of four and a half miles in less than thirty minutes, which he took three weeks before the cough began. There were no symptoms referable to the chest in the interval. He was ordered to remain in the house. The ethereal tincture of iodine was applied to the chest, and acetate of potash was given internally; the second day afterwards iodide of potash was added. The pulse was never above 90, and usually about 72 after the first visit. On the day on which the case was reported the line of flatness was considerably lower. The urine had increased one half since the third day. The iodine was very strong, owing to evaporation, and caused great irritation when it was first applied.

Dr. Knight remarked that the application of ammonia has been said to relieve the pain produced by the external use of iodine.

Dr. C. P. Putnam said that he had made use of ammonia for that purpose without any satisfactory result.

Dr. Amory said that prussic acid added to a solution of iodine will decompose the iodine and hydrocyanic acid into hydriodic acid and volatile cyanogen. This might, in the hands of a cautious person, prevent the further irritation of a local application of tincture of iodine, and unless too much hydrocyanic acid be applied, none of the toxic agent would be left on the cutaneous surface. Hydrocyanic acid will decompose half its volume of alcoholic tincture of iodine.

Dr. Bowditch reported the following case: A young girl about sixteen years of age, after running very rapidly for some distance, eighteen months ago, was seized with a sharp pain in the right shoulder, and has never been in good health since. Two months afterward she had what was supposed to be pneumonia, dyspnœa being a prominent symptom; since then she has been free from this except on exertion, and even then it is not very severe. At the present time she looks well, and has but very little cough, attended with

slight frothy expectoration. She has been unable to lie upon her left side, as it has caused pain in her right shoulder and some difficulty in breathing. She has had no hectic. Menstruation has been absent for six months. On physical examination her right chest was found to be full of fluid, probably serum; there was uniform distention; the intercostal spaces were filled, but there was no bulging; whisper was heard on both sides, though less, perhaps, on the right; there was absence of respiratory murmur or obscure bronchial respiration throughout the right side; puerile respiration throughout the left. The heart was pushed to the left.

Dr. Bowditch said that so long a period of effusion was unique in his practice. He once had a case of nine months' duration, attended with only slight febrile exacerbations. The patient, a resident of New Orleans, was supposed to be suffering from malaria, and after several months of weakness attended with slight febrile attacks he had come North to recruit. The only symptom leading to a suspicion of thoracic disease was some heavy breathing when asleep. The attending physician, on request of friends, examined and found one side of the chest full of fluid. Dr. Bowditch, on being called, decided to aspirate immediately. This was done with the happiest results, notwithstanding the length of time the fluid had apparently been retained. The lung expanded fully within twenty-four hours, and the patient was well in less than four weeks. He hoped to get as good a result in the case of the young girl.

When *not* to make a permanent opening, in cases of pleuritic effusion, Dr. Bowditch said was a most difficult point to decide. A man with phthisis complicated with pleuritic effusion is often more benefited by repeated aspirations than by a permanent opening; when there is disease of one lung, with pleuritic effusion on the other side, one must take into consideration the whole general condition of the patient before deciding *pro* or *con*. The abdominal distress is almost always relieved by aspiration. In these cases ether must be used with extreme caution.

Dr. Knight referred to the first case published by Dr. Blake in his paper on empyema, and said it was apparently one of the most hopeless cases for surgical interference he ever saw, and yet free incision was made and he recovered. He could see no objection to a permanent opening being made even in phthisical patients, excepting the annoyance to the patient, and said that the immediate relief from a free opening in empyema was much greater than from aspiration, no matter how often repeated.

Somnambulism. — Dr. Fisher reported the following case of somnambulism in a young man, charged with setting fire recently to the Exeter School-House and Trinity Church. The father of the young man was intemperate and died of phthisis; one brother also died of the same disease. The patient had practiced the habit of masturbation for several years after the age of puberty. He stated that he had been subject to attacks of somnambulism for years, of which his friends remembered six or eight different instances. He usually jumped from his bed, and seemed to represent by his actions some vivid dream. Once he came near killing his wife, thinking her a wild animal. At these times he would wake up if disturbed, or if he ran against anything.

He had never been known to go out of the house. He described also attacks of nightmare and fits of abstraction by day; said he would sometimes walk for miles without realizing his surroundings, and that he had more than once seen the spirits of dead relatives. His friends said that he became much interested two years ago in books of magic, and thought he could raise evil spirits by magical processes. A few weeks previous to the fires he was thrown out of employment, and his wife left him. He became associated with tramps, and slept many nights in empty freight-cars on the Back Bay.

He stated that he noticed on the morning after the fire in Trinity Church that his clothes, tools, and the car door were not arranged as he left them when he lay down, from which he inferred that he had walked in his sleep. The night of the school-house fire the same thing occurred, and he also dreamed that he was warming himself before a large fire. He denied all charges against him, although a detective who was put in his cell the night of his arrest said he made a confession of the crime to him, and there was some circumstantial evidence also.

Dr. Walker saw the patient with Dr. Fisher, by direction of the district attorney. The conclusion was reached that if the prisoner set the fires in his waking moments he was responsible, and that his own unsupported statements were insufficient to prove that he set the fires in a state of somnambulism although he may have been a somnambulist. The defense of insanity was not made, and the prisoner was convicted and sentenced to five years in the state-prison.

Necrosis of the Jaw. — Dr. C. P. Putnam showed a specimen of necrosis of the jaw, with loss of teeth, in a nursing child, and gave the following history of the case. When the child was eight weeks a yellowish spot was noticed on the front of the lower jaw over one of the incisors, which proved to be the result of necrosis of the jaw. In the course of a week one incisor came through the opening caused by the suppuration, and the cavity apparently closed up, but during the next four weeks three more teeth and bits of bone came out. The child had been nursed for a week after birth, but was afterwards fed, and its digestion was somewhat disturbed when the necrosis began. The child was wet-nursed after the first tooth came out, and throve well; the necrosis continued.

Rubber Plaster. — Dr. McCollom showed a sample of rubber plaster, having as special properties to recommend it its non-irritating effect and the ease with which it adheres without being warmed.

LOOMIS ON FEVERS.[1]

In this interesting volume, which contains the lectures on fevers delivered by Professor Loomis to his class during the last year, we have a concise and impartial review of the literature concerning fevers which has been published since 1850, with reference to a few older books, "because they contain many

[1] *Lectures on Fevers.* By Alfred L. Loomis, A. M., M. D., Professor of Pathology and Practical Medicine in the Medical Department of the University of the City of New York, etc., etc. New York: William Wood & Co. 1877.

of the so-called new theories and modes of treating fevers." In this are embodied the results of the author's own extensive clinical experience, which has led him to form opinions in certain respects at variance with those of some other observers, and the weak points of theories and modes of practice which have not stood the test of time are clearly set forth.

The first seven chapters are devoted to Typhoid Fever, which, with yellow fever, is classed by the author as a "miasmatic-contagious" affection, an intermediate link between the purely contagious and the miasmatic or malarial diseases.

After an account of the pathology and ætiology of this fever, in which its spontaneous origin is discredited, as it is by most modern writers, the symptoms and treatment are studied and detailed in a careful and satisfactory manner. While early intestinal hæmorrhage is not regarded as of great moment, Dr. Loomis has found this to be a very unfavorable symptom, from a prognostic point of view, when occurring after the twelfth day. Fat persons and those who have passed the age of forty are exposed to danger out of proportion to the severity of the fever. Failure of heart-power is considered as usually, directly or indirectly, the cause of death, and this again is greatly dependent on the high temperature; therefore the reduction of heat is desirable. Although no specific treatment is thought to be of any value, the author says, "The duty of the physician is to guide the disease, so far as he may be able, to a favorable issue, and prevent injury to organs essential to life." . . . "Typhoid fever is a disease that has certain stages to pass through, limited only by days and weeks. There is great doubt whether the physician can shorten its duration by a single day, but experience warrants the belief that many lives may be saved by remedial measures used at the proper time and combined with judicious hygienic management. There are critical periods in this disease; be prepared by knowledge and judgment to carry your patient (if possible) safely through them. Unquestionably one of the most important things to be accomplished is the reduction of temperature, or rather the keeping of the temperature below a certain standard." To accomplish this Dr. Loomis is a strong advocate of the antipyretic treatment by means of cold baths and the sulphate of quinine. With regard to the former he is convinced that after the second week they should not be employed, on account of the danger of collapse and pulmonary complications. In warning against the indiscriminate use of cold baths he says, "Perhaps there is no remedial agent which requires greater care and judgment in its use; yet doubtless, when judiciously employed, the lives of many typhoid patients may be saved, and it is equally certain that when injudiciously employed many lives may be destroyed." . . . "At the present time it seems to me that by some the benefit and power of cold baths in the treatment of typhoid fever have been overrated." In this connection it may be said that the treatment by cold baths is best adapted to hospital practice, but the reduction of the temperature which can be safely accomplished in so many cases by the internal use of sulphate of quinine is a therapeutical resource of great value in the routine treatment of all fevers. Dr. Loomis adds his testimony to that of Wunderlich, Liebermeister, and many others, that thirty or forty grains of quinine, given at one dose or within two hours, suffice in many

cases to reduce the heat to a manageable point, where it may be kept by the occasional repetition of smaller doses. An original dose of from fifteen to thirty grains has been found by others sometimes to answer the same purpose. No danger from cinchonism is to be apprehended.

Simple rules are given for the use of stimulants when they are called for to support the failing heart-power, which is so apt to manifest itself in the progress of the disease, and milk diet is recommended as being the best for the maintenance of nutrition. In this it is probable that most practitioners will agree with Dr. Loomis, but the quantity which he states that patients will usually take, "from four to six quarts in the twenty-four hours," appears to us to be about double the average amount taken throughout cases of severity.

The use of calomel early in the disease, as advised by German writers of late years, does not meet with the author's approval, and he says that "the administration of cathartics as an eliminative procedure has neither reason nor experience to sustain it."

Full and interesting chapters on Yellow Fever, the Malarial Affections, and Typhus and Relapsing Fevers follow, the epidemic of typhus which prevailed in New York from 1861 to 1864, and the more recent one of relapsing fever, having afforded Dr. Loomis unusual opportunities for observing diseases which in this neighborhood are practically unknown.

The acute exanthematous fevers, beginning with small-pox, are the subjects of the final chapters. With regard to vaccination, strong ground is taken by Dr. Loomis in opposition to the continued use of humanized vaccine virus, and after substantiating the usual objections which have been made to this method by the mention of cases which have fallen under his own observation, he says, "Always use the bovine virus when it is possible to obtain it. If compelled to use the humanized virus, use the lymph," — good advice, in the opinion of many, and less frequently followed than it might be to advantage, since the objections to bovine vaccination are not in the main essential to the method, whereas the deterioration and contamination of the humanized virus are unavoidable.

A complete bibliography of twenty pages and an index end the volume, which is of convenient size and printed with large type in exceedingly good style.

1877.

As we look back on the medical events of the passing year, we see few very striking ones, but the general view is cheering. Happy are the years that have no history, and doubly happy, we will add, those that have a good one. This may be said of 1877 with regard to the profession in America. Medical education has advanced. Harvard has begun preliminary examinations, and the University of Pennsylvania has adopted the graded course; both are meeting with success. The various leading societies held satisfactory meetings, with the exception of the ophthalmological, which was prevented by the railroad strike. Dr. Bowditch, of Boston, presided over the deliberations of the American Medical Association at Chicago, and Dr. Richardson, of Louisiana,

was elected his successor. The speeches on this occasion showed that the profession now, as has always been the case, is most anxious to hasten the restoration of complete harmony throughout the country. The meeting of the American Gynæcological Association at Boston deserves special mention on account of the great value of the papers presented and of the merits of the discussions. A new association — the Dermatological — held its first meeting at Niagara. Dr. J. C. White, of Boston, was the president. The beginning gives promise of excellent results.

Last year we closed our editorial remarks with the following sentence: "We cannot believe that the iniquity will be longer endured, and we trust that with other 'old shapes of foul disease' the New Year bells will 'ring out' the coroner system." Our hopes have not been deceived; the system is with us a thing of the past, and our State has the honor of being the first to take a step that sooner or later will be followed wherever the English language is spoken. The new system of medical examiners has, so far, proved very satisfactory.

We will not attempt to enumerate the losses we have suffered by death during the year. There have fallen, we believe, but two of wide-spread reputation. In the early days of November Paul F. Eve, the distinguished surgeon, died suddenly at Nashville, and at the end of the same month Edward H. Clarke reached the end of his long illness. Many others have passed away who, though of less renown, have left gaps difficult to fill. We might wish to dwell on the memory of such of them as we knew best were it not that we feared that the choice of any might appear a slight to others. Overcrowded as the profession is, the loss of the conscientious physician is always felt, and not least in smaller communities.

Such is a bare outline of the departing year. There is every reason to expect that the coming one will be marked by quiet progress; we hope all our readers will find it a happy one.

MEDICAL NOTES.

— Jourdain has failed again to get a license for his Museum of Anatomy. The committee on licenses reported very properly that there were sufficient opportunities for legitimate study, and that the effect of such exhibitions on the public was not good.

— The patience of the English with the coroner system appears to be running low. The medical journals are full of accounts of blunders, irregularities, and plans of reform. It is evident that the system has outlived its usefulness everywhere.

— A post-office clerk in Prussia was found to be constantly in trouble with the stamps. The accounts would come wrong. Sometimes there was not enough money in return for stamps sold, and on other occasions there was too much. This made dishonesty on his part less likely, but it was incomprehensible how he could make the accounts so entangled. At length it was discovered that he was color blind, and could not distinguish red from green stamps.

CARNEY HOSPITAL.

SURGICAL CASES OF DR. E. H. BRADFORD.

[REPORTED BY J. B. SWIFT, M. D.]

House-Maid's Knee; Direct Incision, with Antiseptic Precautions; Complete Obliteration of the Sac without Suppuration. — M. R., cook, fifty years old, entered the hospital September 16, 1877. The patient stated that she had had the same trouble with the knee before, but never so severe an attack as the present one. The knee became painful without known cause five days before entrance, and later red, tender, and swollen. On examination the characteristic tumor of house-maid's knee was found. The skin covering the swelling was red and brawny, and at a spot below the patella there was evidence of pointing.

An incision was made directly into the tumor. A bloody, serous fluid was evacuated, with little or no pus and no rice bodies; the skin incised was as brawny as the skin in a carbuncle. The wall of the sac was found to be very firm. No attempt was made to dissect out the sac; an incision was made on the outer side, and a drainage tube was inserted. The cavity was washed out with a solution of carbolic acid (one to forty), and the limb was placed on a ham splint. No stitches were inserted, as the skin seemed sloughy. The wound was dressed with antiseptic gauze, under spray, and the usual antiseptic precautions were used during the operation. The gauze dressing was changed in the afternoon under spray, as a slight amount of discharge had soaked through; on the following morning the dressing was again changed, and the cavity syringed out with a solution of carbolic acid. Temperature 98° F.

Three days after the operation the drainage tube was removed. There had been no suppuration and no elevation of temperature. On the eleventh day after the operation the dressing was removed. The sac was apparently entirely obliterated, although there had been no suppuration. The swelling and redness of the skin had disappeared.

Four days later the patient was discharged, being able to walk about perfectly well.

Papillary Tumor of the Perinæum. — C. D., fifty-four years old, a married woman, entered the hospital October 6, 1877. She stated that for the past seven or eight years she had been troubled very much with "piles." Six months previous to entrance she noticed that they had increased in size, and since then they had grown rapidly. At times she suffered severe pain, and she had lost considerable blood.

On examination a large cauliflower excrescence was found on the perinæum, six inches long, four inches wide, and projecting two to three inches above the marginal skin. The mass of the tumor was to the left of the anus, which was hidden by the overlapping lobules of the growth. There was a thin discharge from the surface of the growth, but no ulceration. Any interference with the growth caused hæmorrhage. The greater part of the tumor was connected with the skin by short and comparatively thin pedicles, but one portion was attached by a broad base, around which the skin was inflamed. The tumor

was composed of several lobules, which could be separated exactly as can be done with a cauliflower. A finger inserted into the vagina felt some thickening of the posterior wall, and an examination by the rectum gave evidence of a resisting mass in the left ischio-rectal fossa to the depth of three or four inches; the mucous surface of the rectum was not involved.

Under ether the various lobules were removed with an écraseur. No attempt was made to dissect out the portion of the tumor in the ischio-rectal fossa, as the extent and depth of the mass did not seem to justify it. The bleeding from the pedicles was readily controlled by perchloride of iron. There was no subsequent hæmorrhage. The patient, a few days after the operation, was able to walk about and sit down with more ease than before. A week later she returned home. Since then she has had no hæmorrhage, and writes that she has remained quite comfortable.

A microscopical examination of the part removed, as well as of a piece snipped from the mass in the ischio-rectal fossa, was made by Dr. E. G. Cutler. The structure of the portion examined was found to be that of a papilloma. It was impossible to determine, without further surgical interference, whether there was evidence of epithelioma in the remaining mass of the growth.

Separation of the Epiphysis at the Lower End of the Humerus; Recovery with Motion. — E. A., nine years old, entered the hospital October 1st. The patient stated that three days before he fell out of bed, striking on his right elbow. The boy was brought to the hospital with his arm in an internal angular splint.

The arm was examined under ether. The right elbow was found to be swollen. The radius and ulna were dislocated backwards and to the inside. There was no rigidity; on the contrary, supernatural mobility. The deformity could be reduced by extension, but immediately returned. If the humerus were grasped by the shaft and by the external supra-condyloid ridge, which could be felt easily, no crepitus could be detected. But a soft crepitus was felt on pressing just above the head of the reduced radius. No fracture of the ulna or radius or evidence of fracture of the coronoid process could be found. A diagnosis of separation of the lower epiphysis of the humerus was made. The arm was placed in an internal angular splint, with an external coaptation splint. On the 6th the bandages were removed. There being a slight lateral deformity at the inner side, a piece of pasteboard, well padded, was placed on the inner side of the arm. On the 18th firm union, with good position, was found; the arm could be flexed and extended to a slight degree.

Passive motion was applied twice a week until the 31st, when the splints were removed, and the patient was instructed to use the arm as much as possible. At this time the arm could be extended almost in a straight line and flexed to beyond a right angle.

November 7th. Patient reported that he could feed and dress himself, and brush his hair with his right hand.

OBITUARY,

MESSRS. EDITORS, — Dr. William J. Sawin, of Chicopee Falls, died suddenly of apoplexy on the 3d inst., in the forty-fifth year of his age. He was born at Hancock, N. H., August 8, 1833, studied medicine at Northfield, Vt., and graduated at the Dartmouth Medical School in 1854. In the same year he began practice in Watertown, Wisconsin, and remained there till March, 1861, when he removed to Chicopee Falls. In the following June he enlisted as a private in the tenth Massachusetts regiment, was transferred September 6th to the third Vermont regiment as hospital steward, served as contract surgeon from October 1, 1861, to June 21, 1862, was made assistant surgeon, and then brigade surgeon in December, 1862. The last position he held till the expiration of his term of service, June 29, 1864, when he returned to Chicopee Falls, and there spent the remainder of his life.

On the evening of his death Dr. Sawin was to have been installed as Eminent Commander of the Knights Templar in Springfield. The hall in which the installation was to take place was in the fourth story, and a large assemblage had gathered to witness the ceremonies. The doctor, who had long been preparing for the occasion, was already in an excited condition. He ate a hearty supper, and then, being a little behind time, ran rapidly up three flights of stairs to the hall and took his seat on the platform. The exercises began. In about three minutes the doctor leaned forwards and fell dead from his chair. He was a large, muscular man, apparently in the most robust health. By his death Hampden County loses an excellent physician and surgeon and a public-spirited citizen. Dr. Sawin was possessed of an elevated professional spirit, and did more, probably, than any other man in the past decade for the welfare of our district society. At a meeting of the Hampden District Medical Society, held the 5th inst., the following resolutions were adopted: —

Whereas, William J. Sawin, M. D., of Chicopee Falls, a distinguished member of the Hampden District Medical Society, has suddenly been removed from his sphere of usefulness on earth, therefore it is

Resolved, That we, in common with those who are thus deprived of his professional services, deeply regret his loss, and offer to the grief-stricken family our sincere condolence in their sudden affliction.

Resolved, That a copy of the above be forwarded to the family of the deceased, and also to the Springfield daily papers and the Boston Medical and Surgical Journal.

W. W. GARDNER,
W. G. BRECK,
S. LAWTON, JR., } *Committee.*

F. W. CHAPIN, *Secretary.*

CHLORODYNE.

MESSRS. EDITORS, — I have used during eight years a prescription compounded according to the following formula, in the same dose, and for the same indications mentioned in the case of Collis Browne's chlorodyne, and have found no difference in the results obtained: —

℞ Morphiæ muriatis . . . . . grs. viij.
Aquæ destillatæ . . . . . 3 ss.
Chloroformi . . . . . 3 iss.
Tinct. cannabis . . . . . 3 ss.
Acid. hydrocyanici dil. . . . . gtt. xii.
Alcohol . . . . . 3 iss.
Olei menth. pip. . . . . gtt. ij.
Oleoresin. capsici *vel* . . . . . gtt. i.
Tinct. capsici . . . . . gtt. x.
Misce secundum artem.

This eliminates the treacle, which can scarcely be an active ingredient in the compound.

EDWIN FARNHAM.

CAMBRIDGE, MASS.

COMPARATIVE MORTALITY-RATES FOR THE WEEK ENDING DECEMBER 15, 1877.

	Estimated Population, July 1, 1877.	Total Mortality for the Week.	Annual Death-Rate per 1000 for the Week.	Death-Rate for the Year 1876.
New York	1,077,228			27.46
Philadelphia	850,856	285	17.41	22.88
Brooklyn	527,830	189	18.62	24.31
Chicago	420,000	121	14.98	20.41
Boston	363,940	131	18.71	23.39
Providence	103,000	32	16.15	18.34
Worcester	52,977	19	18.65	22.00
Lowell	53,678	12	11.62	22.21
Cambridge	51,572	12	12.09	20.54
Fall River	50,372	13	13.42	22.04
Lawrence	37,626			23.32
Lynn	34,524	13	17.97	21.37
Springfield	32,976	3	4.73	19.69
Salem	26,739	11	21.39	23.57

BOOKS AND PAMPHLETS RECEIVED. — Ovariotomy by Enucleation. By Julius F. Miner, M. D. (Extracted from the Transactions of the International Medical Congress.)

Statistics gathered by the Department of Physical Education in Amherst College.

Excision of the Knee-Joint. By George E. Fenwick, M. D. (From the Transactions of the Canada Medical Association.) 1877.

The Narcotic Effect of Morphia on the New-Born Child. By W. R. Gillette, M. D. (From the American Journal of Obstetrics and Diseases of Children.) 1877.

Clinical Lectures on Surgery. I. By J. H. Pooley, M. D. (Reprinted from the Ohio Medical and Surgical Journal.)

SUFFOLK DISTRICT MEDICAL SOCIETY. — The regular meeting will be held at the rooms, 36 Temple Place, on Saturday evening, December 29th, at seven and a half o'clock, The following papers and cases will be read: —

Dr. G. M. Garland, Pneumono-Dynamics.

Dr. W. D. Robertson, Fracture of Leg treated by Swinging Extension.

Dr. E. Chenery, Rupture of the Bowels. Rib fractured by Cough.

Tea, etc., at nine o'clock.